Claims

What is claimed is:

A method for promoting wound healing comprising the steps of:

providing isolate tropoelastin and isolated lysyl oxidase

separated from each other; and

applying both said tropoelastin and said lysyl oxidase to wound

simultaneously or sequentially.

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2. The method of claim 1 wherein tropoelastin is wild type tropoelastin matched to species of recipient.

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The method of claim wherein tropoelastin is modified 3. tropoelastin.

The method of claim 3 wherein amino acid sequence of 4. tropoelastin has been changed relative to amino acid sequence of wild type tropoelastin.

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The method of claim 1 wherein tropoelastin comprises a heterogeneous mixture of tropoelastin isoforms.

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- 6. The method of claim 1 wherein lysyl oxidase comprises an enzymatically active portion of lysyl oxidase.
- 7. The method of claim 1 wherein lysyl oxidase is modified lysyl oxidase relative to wild type lysyl oxidase.
- 8. The method of claim 7 wherein the amino acid sequence of lysyl oxidase has been changed relative to wild type lysyl oxidase.

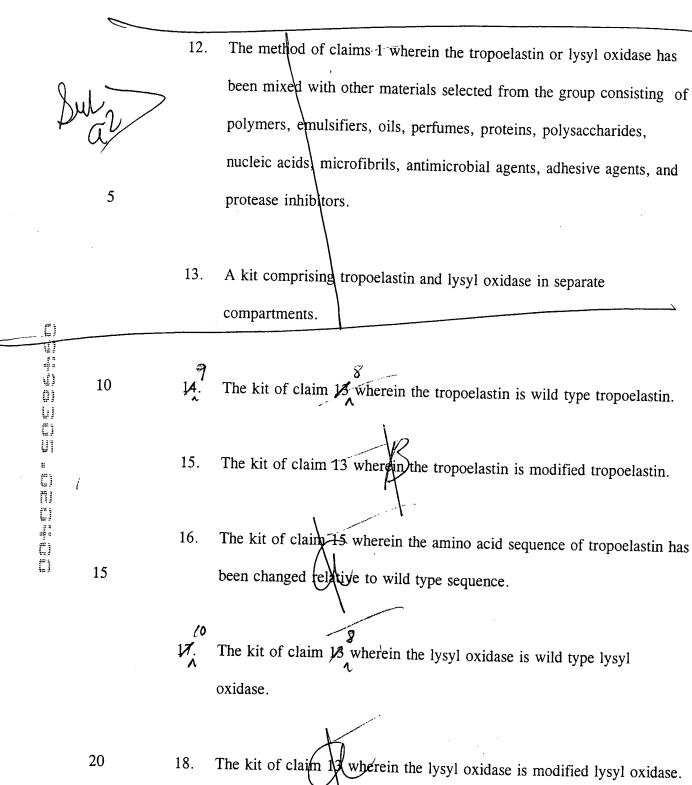
The method of claim 1 wherein the method comprises the additional step of:

repeatedly applying the tropoelastin and lysyl oxidase to the wound during the healing process.

The method of claim 1 wherein the method comprises the additional step of:

approximating separated tissue of the wound using sutures, staples, adhesive strips, or tissue glue.

The method of claim 1 wherein the step of applying comprises applying the tropoelastin and lysyl oxidase with a sterile syringe.



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- 19. The kit of claim 18 wherein the amino acid sequence of lysyl oxidase has been changed relative to wild type sequence.
 - 20. A kit comprising tropoelastin and lysyl oxidase in the same compartment, wherein the lysyl oxidase is in an inactive form which can be later converted to an active form.
 - 21. A kit comprising tropoelastin and lysyl oxidase in the same compartment, wherein either the tropoelastin or lysyl oxidase is encapsulated by a polymer.
- 22. The kit of claim 21 wherein the polymer is biodegradable.
- 23. The method of claim wherein the wound involves the skin.
- 24. The method of claim 1 wherein the wound involves an artery.
- 25. The method of claim 1 wherein the wound involves lung tissue.